

# (12) UK Patent Application (19) GB (11) 2 322 217 (13) A

(43) Date of A Publication 19.08.1998

(21) Application No 9727353.6

(22) Date of Filing 29.12.1997

(30) Priority Data

(31) 9702844

(32) 12.02.1997

(33) GB

(71) Applicant(s)

**Barcrest Limited**

**(Incorporated in the United Kingdom)**

**Margaret Street, Ashton-under-Lyne, Lancashire,  
OL7 0QQ, United Kingdom**

(72) Inventor(s)

**Dov Liam Randall**

(74) Agent and/or Address for Service

**Wilson Gunn M'Caw**

**41-51 Royal Exchange, Cross Street, MANCHESTER,  
M2 7BD, United Kingdom**

(51) INT CL<sup>6</sup>

**G07F 17/32 17/34**

(52) UK CL (Edition P)

**G4V VAA V118 V119**

(56) Documents Cited

**GB 0970806 A**

**EP 0214290 A1**

**WO 96/23286 A1**

**US 5292127 A**

**US 4837728 A**

(58) Field of Search

**UK CL (Edition P) G4V VAA**

**INT CL<sup>6</sup> G07F 17/32 17/34**

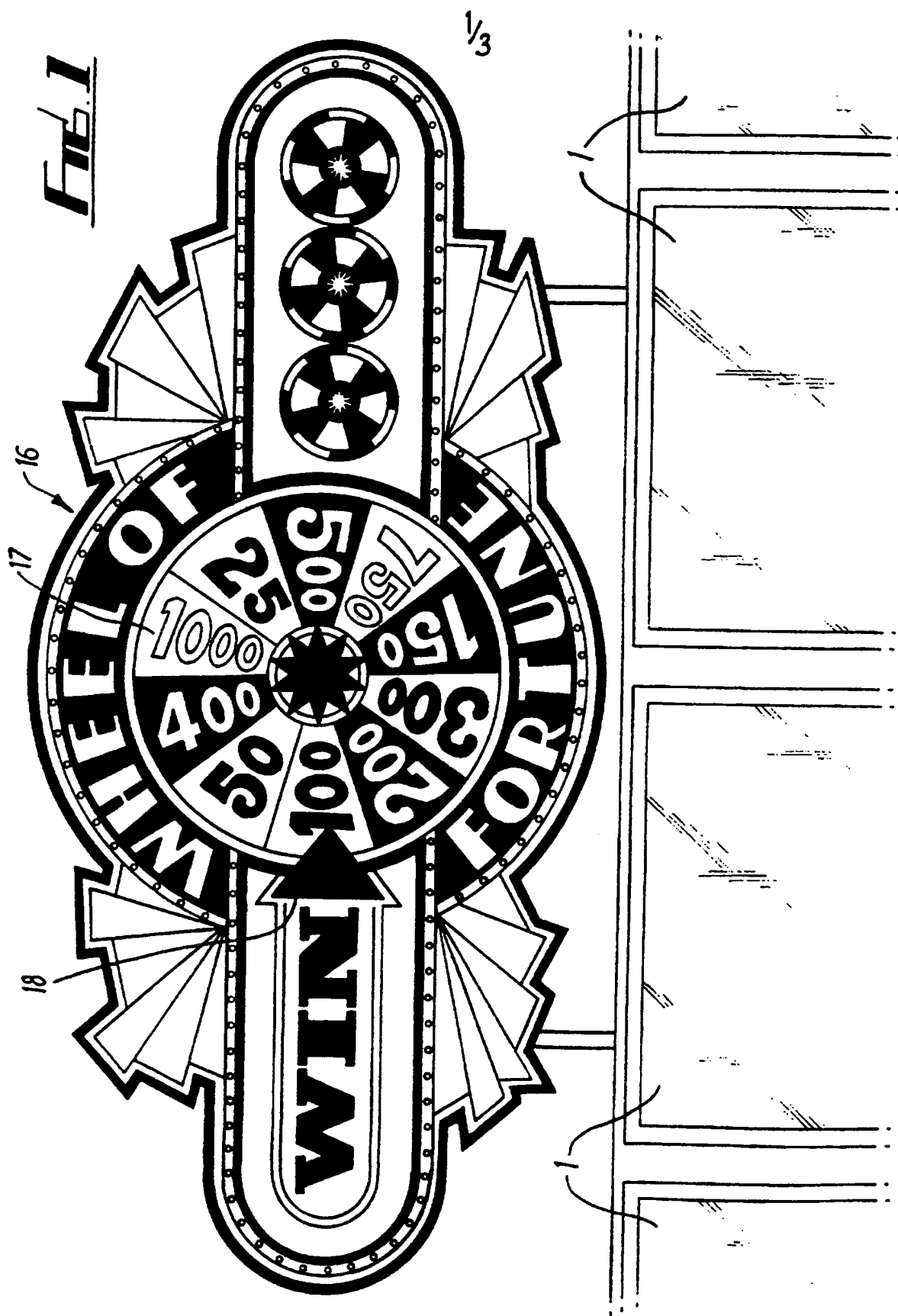
(54) Abstract Title

**Entertainment machine system**

(57) A games system comprises a plurality of entertainment machines 1 linked to a common display device 21, which may be a set of reels 22 or a selector wheel (17, figure 1), and an award is made available at one or more of the individual machines 1 in dependence on a display attained on the common display device 21. This may provide an additional award opportunity for one of the individual machines 1, or alternatively when one machine 1 attains a win on the common display device 21, the winnings may be shared amongst all of the linked machines 1. The award paid out from the common display device 21 is preferably of greater value than can be won on an individual machine 1 without using said common display device. The entertainment machines 1 may be coin operated 'fruit' or 'poker' machines. Preferably, the entertainment machines 1 are located side by side, and the common display device may be mounted on top of the machines 1.



GB 2 322 217 A



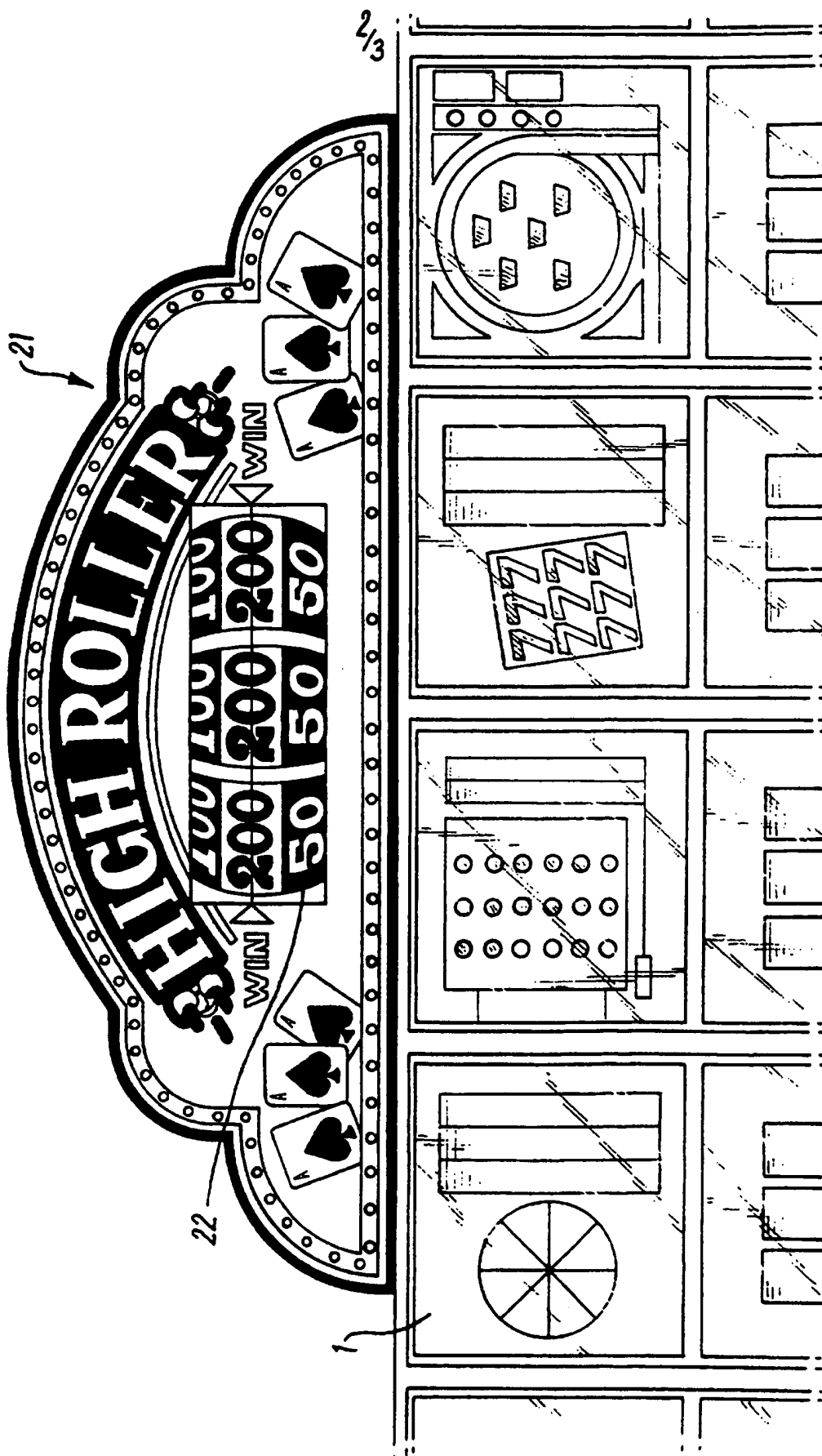
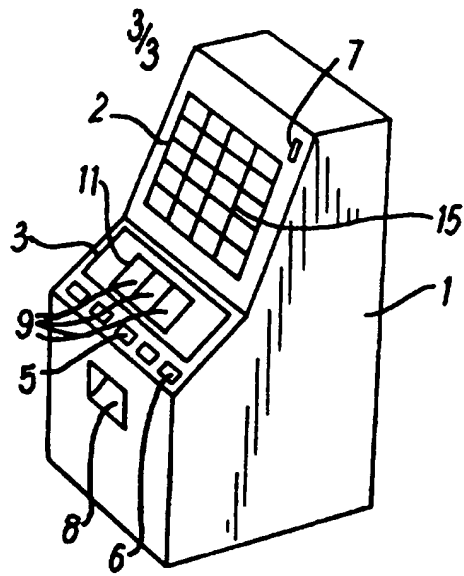
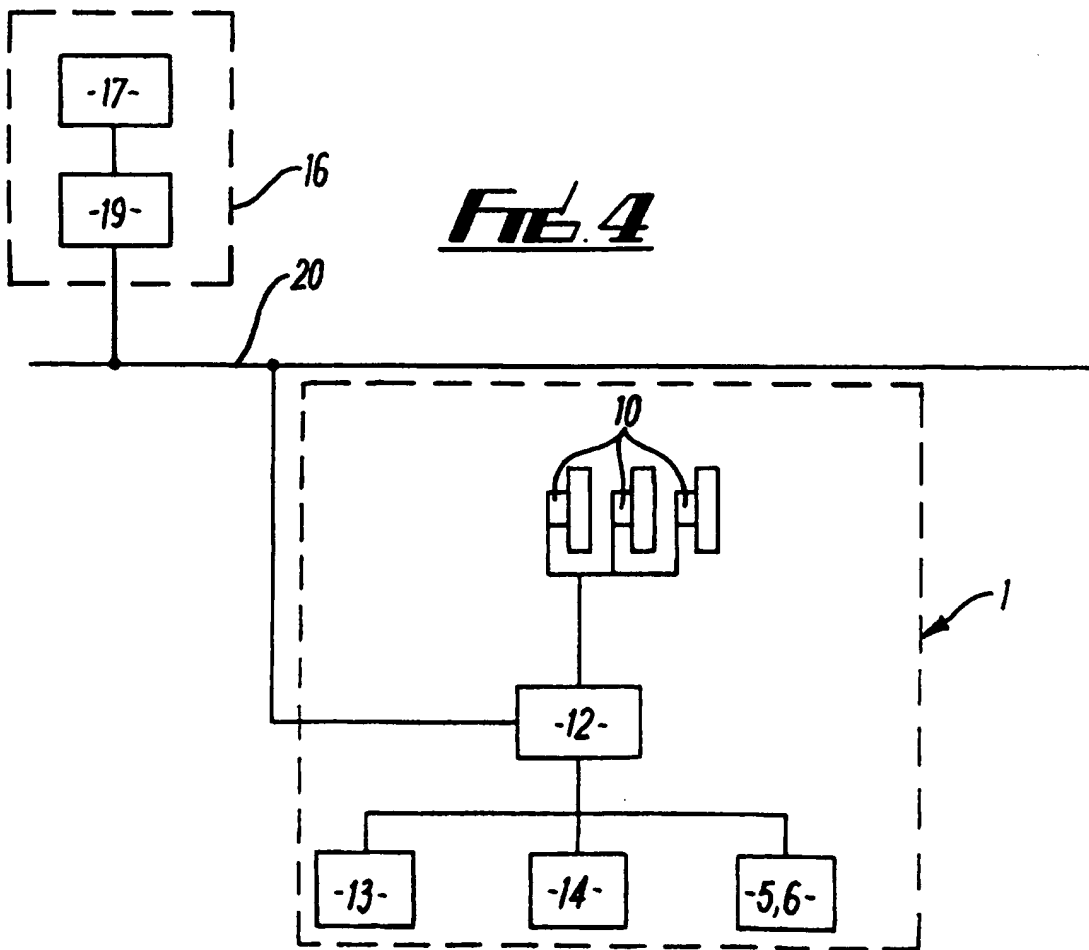


FIG. 2



**FIG. 3**



**FIG. 4**

ENTERTAINMENT MACHINES

This invention relates to player-operable entertainment machines.

The invention is more particularly, although not exclusively concerned with coin-operated entertainment machines of the 'fruit' machine or  
5 'poker' machine kind having a main display device for displaying a selected combination of symbols at a win zone. A game is played resulting in selection of the displayed combination of symbols, and an award is made available to the player in the event that the combination is of a predetermined winning nature.

10 As used herein, the term coin-operated is intended also to cover operation by tokens, charge or credit cards or any other means of supplying credit or monetary value.

Known fruit machines are usually operated independently whereby the range of available awards is limited by the operational parameters, for  
15 example the pay-out ratio, of a particular machine. However, there are circumstances, such as in casinos, where machines are operated at adjoining or close locations and this gives rise to possibilities for interrelationship between individual machines and consequent enhanced ranges of awards.

20 An object of the present invention is to provide a game system using multiple entertainment machines arranged to give improved or enhanced award possibilities.

According to the invention therefore there is provided a games systems comprising a plurality of entertainment machines linked to a common display device, each machine being operable to play a game, and an award being made available at one or more of the machines in dependence on a display attained on the display device.

With this arrangement an award is attained as a consequence of an event separate from each machine whereby the range of available awards can be enhanced relative to the awards available with a machine operated independently.

Since the available awards may be different from those attainable with an independent machine and also can be achieved in a different manner, the player may be presented with greater game-playing variety and entertainment and also, in so far as the award structure is determined by factors additional to those derived from an independent machine, there may be possibilities for improved (i.e. larger or increased frequency) awards. In the latter respect, the display device may add award-determining factors and/or the multiple machines may contribute collectively to award-determination.

In one embodiment, the common display device may provide an additional award-determining feature for each machine, whereby play transfers to the display device from one machine, e.g. as a consequence of a predetermined result attained on such machine, and the player may attain

an award through such machine as a consequence of the outcome of an action displayed on the common display device.

In another embodiment, the common display device provides an award-determining feature for a plurality of machines, whereby for example  
5 an award attained as a consequence of a result achieved with one machine is shared with other machines e.g. with other machines currently in play.

Each machine is preferably a coin-operated machine of the 'fruit' or 'poker' kind as described above. In particular, the machine may be of the kind having multiple side-by-side reels rotatable about a common horizontal  
10 axis within a housing behind a window at the win zone, each reel having symbols at equally spaced positions around its periphery and the reels being arranged to be rotated and then brought to rest with one or more symbols on each reel displayed through the window for example on a win line. Each machine may have manual controls such as 'hold', 'nudge' and the like for  
15 player intervention in a game, and each machine may have a supplementary display or 'games feature' which can be used to enhance the entertainment value of the machine and provide additional or alternative opportunities for winning through the playing of a supplementary game.

It is however to be understood that the invention is not restricted to  
20 reel-type fruit machines as described above. The machines may use simulated reels (video displays) or other random or pseudo-random symbol selecting devices, and indeed the machines may be of any suitable AWP

(amusement with prizes), gaming, SWP (skill with prizes) or other kind.

With regard to the common display device, this may take any suitable form and thus, for example, may comprise a selector device, such as a rotatable wheel with awards marked thereon, or it may comprise a plurality  
5 of rotatable reels in like manner to the machine symbol selectors mentioned above. Any other suitable display device may be used.

The individual machines may be located side by side in a row as floor-standing housed machines, and the display device may be mounted as a separate unit, on top of the machines with appropriate connections  
10 therebetween.

Any other suitable arrangement may also be used, and thus the display device may be connected to all, or only selected ones of any suitable number and arrangement of machines whether or not close to each other or to the display device.

15 With regard to the awards made available with the invention, these may be of any suitable kind and thus may comprise payout of cash, tokens or other credit, or free games or prizes or scores or any other suitable award.

The invention will now be described further by way of example only  
20 and with reference to the accompanying drawings in which:-

Figs. 1 & 2 are diagrammatic front views of machines connected to a common display in accordance with two embodiments of the



invention;

Fig. 3 is a diagrammatic perspective view of one of the machines;  
and

Fig. 4 is a block circuit diagram illustrating a typical control  
5 arrangement for the embodiments of Figs. 1 & 2.

Referring to the drawings, these show multiple side by side fruit machines each having a floor-standing box-shaped housing 1 having a front wall which includes upper and lower glass panels 2, 3, a number of player operating buttons 5, 6 a coin slot 7 and a payout opening 8.

10 Within the housing 1 there are three axially aligned reels 9 having say 20 symbols at regularly spaced positions around their peripheries. The reels 9 are axially rotatable and are drivably connected to respective stepper motors 10. The reels 9 are arranged behind a window 11 defined by a printed region of the lower glass panel 3. Each reel 9 can be arrested by  
15 the respective stepper motor 10 in any of 20 stepping positions in which one symbol is in precise registration with a horizontal win line in the centre of the window 11 and two further symbols are visible above and below the win line.

The stepper motors 10 are connected to a microprocessor-based  
20 control unit 12. This unit is also connected to a coin-mechanism 13, a payout mechanism 14 and the buttons 5, 6.

In use, the player inserts coins into the coin mechanism 13 through

the slot 7 sufficient to generate credit for one or more games, and the machine is actuated so that a game can now be played. The game commences after a start button 5 has been pressed and the reels 9 spin and then come to rest so as to select a combination of symbols displayed on the win line. The displayed symbol combination is assessed by the control unit 12 and a win indication is given in the event that the combination is of a predetermined winning nature.

The control buttons 5 can be used to perform 'hold' or 'nudge' functions, when made available to the player, so that the player can seek to influence the outcome of a game, in conventional manner.

The upper panel 2 is a transparent glass panel and behind this there is a display region 15, which can be back-illuminated and which provides a supplementary games feature.

As shown in Fig. 1, the multiple side by side fruit machines are in fixed positions alongside each other and a housed display unit 16 is mounted in a fixed position on top of the machines centrally of the row thereof so that it can be readily seen by a player operating any of the individual machines.

The display unit has a motor-driven wheel 17 marked with award values. The wheel 17 can be rotated and then brought to rest with one such value selected by alignment with a fixed pointer 18.

The motor and control circuitry 19 for the display unit 16 is

connected via a bus 20 to the control units 12 of the individual machines.

Each machine connected to the display unit 16 has a special feature whereby on attaining some specific target or game result on the machine, such as a specific combination of symbols on the main reels 10, or an accumulated score, or a winning outcome of the supplementary game on the display 15, or the like, the display unit 16 is actuated and the player now has the opportunity of attaining an award as determined by, or indicated on the display unit 16.

This may occur automatically in that the wheel 17 is automatically rotated and the player then attains the award shown on the wheel 17. Alternatively, the player may be given the possibility of influencing the outcome in that, for example, the player has to press a button to start and/or stop the wheel 17.

The resulting award may be communicated back to the respective machine which triggered the display unit 16 and this may result in a payout, and/or the award may be accumulated in the machine with existing awards, or any other suitable action may be taken.

In this way, the players of the individual machines are given a further opportunity for attaining a win. This adds to entertainment and variety and also may enable the players to obtain a larger win than the maximum which can be obtained with an individual machine. In effect, the players may be given the opportunity of a communal jackpot in addition to the individual

jackpots on the machines.

With the embodiment of Fig. 2, the arrangement is similar to Fig. 1, except that the display unit 21 has three rotatable reels 22, each marked with award values, rotatable behind a window with a central horizontal win  
5 line, like the reels 10 of the machines. The unit 21 is connected to the bus 20 in like manner to the unit 16 described in relation to Fig. 1.

With this arrangement, transfer of play to the display unit 19 from an individual machine, occurs in like manner to the arrangement of Fig. 1. Then the reels on the display unit are rotated and brought to rest and the  
10 displayed combination determines whether an award has been attained and if so what is its value. Thus, an award may be attained if three identical values are displayed on the win line, the award being equal to such value.

Once an award has been attained with the display unit 21, this is awarded to all machines which are connected to the display unit 21 and  
15 which are currently in play. Each machine may receive the same award value being the value selected by the display unit, or being an equal share of this value.

With this arrangement additional entertainment value and enhanced awards can be obtained, and in particular a player has the opportunity of  
20 benefiting even when he has not been able to attain a win on the individual machine which he is playing.

As described above, the display unit is mounted on and connected to

all machines of a linked row of machines. It is to be understood that the invention is not restricted to this arrangement.

The display unit 16 or 21 may be linked to all of a small number (e.g. 2 to 5) of machines. It may alternatively be linked to more machines  
5 which need not be alongside each other, and the unit need not be on or close to the machines as long as it is in a position in which it is readily visible. Thus the unit may be linked to all machines in a casino.

The unit may also be linked selectively to only some of the machines.

It is to be understood that the invention is not intended to be  
10 restricted to the details of the above embodiment which are described by way of example only.

Thus, for example, where an award on the display unit is made available to multiple machines this may be shared, as described, in the sense of being subdivided between the respective played machines.  
15 Alternatively, however, each played machine may receive the same award equal to the displayed value, or some other basis of sharing or duplication may be utilised.

With the embodiment of Fig. 1, the system operates such that the display unit 16, when actuated, is associated with one only of the machines  
20 1, whereby it is only that machine which can be used to start and/or stop the wheel 17 (in the case where the player is given the opportunity of influencing selection with the wheel), and it is only that machine which

benefits from any award attained with the display unit 16. During such actuation of the display unit 16, association between the other machines 1 and the display unit 16 is blocked. That is, players of the other machines can observe the display unit 16 but their machines are incapable of entering  
5 into a mode in which play is transferred to the display unit 16. This blocking may be achieved in that the attainment of the result on these other machines which would initiate, or provide the opportunity of transfer, is inhibited or, alternatively, the result may be attained but its execution may be delayed until the existing use of the display unit has finished, for  
10 example, the result may be displayed to the player on the individual machine with a message that transfer is being delayed, or some other machine action may be initiated before informing the player that transfer is available.

With the arrangement of Fig. 2, when the display unit 21 is actuated as a consequence of a result attained on one machine, this may have the  
15 effect of intervening with existing machine already in play in that the current game is interrupted or cancelled pending the outcome of the operation of the display unit 21, or, alternatively, current games may be allowed to proceed with any award arising from operation of the display unit 21 simply being credited to the other machines in play so as to be shown to the player  
20 at the end of a game or at some other convenient opportunity. The player may be made aware of the potential additional award by virtue of the actuation of the unit 21 and/or by actuation of a signal, such as a flashing

light, illuminated message or the like on the individual machine which may occur during or after game playing.

As mentioned, the additional award which can be attained with the display unit 16 or 21 may be of the nature of a jackpot which may be greater than that which can be attained with an individual machine without using the display unit 16 or 21. This may be of a predetermined, randomly awarded nature, or may be determined by operation of the individual machines in that value builds up in the unit 16 or 21 in dependence on play of the individual machines (e.g. in dependence on attainment of predetermined results, or number of games played, etc) whereby the jackpot becomes available when the accumulated value from all machines has reached the predetermined jackpot level, this then being awarded on a predictable or random or other basis. It is however to be understood that the display units 16 and 21 can also be used to make other awards additionally or alternatively to a jackpot award, and the unit 16 or 21 may provide the opportunity for a single award or for a range of awards.

Whilst reference is made above to coin operated fruit machines, the machines 1 may be other kinds of machines. Also, it is possible to use a mixture of kinds of machines whereby for example at least one fruit machine is used in combination with one or more other kinds of machines.

CLAIMS

1. A games system comprising a plurality of machines linked to a common display device, each machine being operable to play a game, and an award being made available at one or more of the machines in  
5 dependence on a display attained on the display device.
2. A game system according to claim 1 wherein the common display device provides an additional award-determining feature for each machine.
3. A game system according to claim 2 wherein play can transfer from any one said machine as a consequence of a predetermined result attained  
10 on such machine.
4. A game system according to claim 3 wherein the said award is made available, at said one machine only, as a consequence of the outcome of an action displayed on the common display device.
5. A game system according to claim 1 wherein the common display  
15 device provides an award-determining feature for a plurality of said machines.
6. A game system according to claim 5 wherein an award is attained as a consequence of a result achieved with one said machine and this is shared or duplicated amongst one or more other said machines.
- 20 7. A game system according to claim 6 wherein the attained award is shared or duplicated amongst one or more other said machines which are currently in play.



8. A game system according to any one of claims 1 to 7 wherein the said award is a jackpot award of greater value than any award which can be attained with an individual said machine without using the said display unit.
- 5 9. A game system according to any one of claims 1 to 8 wherein each said machine is a coin-operated entertainment machine of the 'fruit' or 'poker' kind as hereinbefore described.
- 10 10. A game system according to claim 9 wherein each said machine is of the kind having multiple side-by-side reels rotatable about a common horizontal axis within a housing behind a window at the win zone, each reel having symbols at equally spaced positions around its periphery and the reels being arranged to be rotated and then brought to rest with one or more symbols on each reel displayed through the window.
- 15 11. A game system according to any one of claims 1 to 10 wherein the common display device comprises a selector device.
12. A game system according to claim 11 wherein the selector device comprises a rotatable wheel with awards marked thereon.
13. A game system according to claim 11 wherein the selector device comprises a plurality of rotatable reels.
- 20 14. A game system according to any one of claims 1 to 13 wherein the said machines are located side by side in a row.
15. A game system according to claim 14 wherein the common display

device is mounted as a separate unit on top of the machines with connections therebetween.

16. A games system substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.



Application No: GB 9727353.6  
Claims searched: All

Examiner: Dr Steven Chadwell  
Date of search: 3 February 1998

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.P): G4V (VAA)

Int Cl (Ed.6): G07F 17/32 17/34

Other: None

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X	GB 970806 (CROMPTON) see whole specification, particularly figure 1 and page 1 line 72 to page 2 line 69.	1,5,8,11, 14,15
X	EP 0214290 A1 (SIGMA) see whole specification, especially figure 1	1,5,8,11, 13,14
X	WO 96/23286 A1 (NSM) see particularly abstract and figure	1-5,9, 10,14
X	US 5292127 (LAZER-TRON) see especially figure 1 and column 1 lines 43-60 and column 2 line 65 to column 4 line 19	1,2,5,8,14, 15
X	US 4837728 (IGT) see figures 1,2 and column 1 line 57 to column 4 line 26	1,2,5, 8-10,14,15

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**